

## ABSTRACT

Apparatuses, methods and articles made therefrom include the use of an on-site and on-demand gas generator for preparation of sulfonating gas to be mixed with dry air to treat surfaces of polymeric materials. The apparatuses and methods may be utilized by placing numerous articles into a container and sulfonating all of the articles at once in a batch process, or there may be a multiple injection port gas delivery system for the production of numerous articles of enclosed vessels with the sulfonation treatment on the interior surface of the vessel.